

WHAT IS CLAIMED IS:

1. A method for optically moving images away from a scotomatous area of a person having a retinal degenerative condition, the method comprising:

inserting an ocular lens into an eye of the person having the retinal degenerative condition, the ocular lens comprising an optic body, an optically transmissive primary fluid, and an optically transmissive secondary fluid, the optical body comprising an anterior wall, a posterior wall, and a chamber between the anterior wall and the posterior wall, the optically transmissive primary and secondary fluids contained in the chamber and having different densities and refractive indexes from one another.

2. A method according to claim 1, further comprising:
orienting the human eye in a generally straight ahead gaze for far vision to pass the visual axis through the primary liquid, but not the secondary liquid, for focusing on a distant point; and
moving the human eye into a downward gaze to pass the visual axis through the primary liquid and the secondary liquid for focusing on a near point, the near point being in closer proximity to the human eye than the distant point.

3. A method according to claim 1, further comprises providing an objective lens in front of the ocular lens.

4. A method according to claim 3, wherein the ocular lens is negative in power in straight ahead gaze and positive in power in down gaze, wherein the objective lens has a positive power, and wherein the ocular and objective lenses collectively provide a Galilean telescopic effect in straight ahead gaze and an increased magnification in down gaze.

5. A method according to claim 4, wherein the primary fluid and the secondary fluid comprise a first liquid and a second liquid, respectively.

6. A method according to claim 4, wherein a contact interface is interposed between the first liquid and the second liquid, and wherein orienting the optical axis for near vision at a range of effective downward angles relative to the horizontal orientation positions the optical axis to extend through the contact interface.

7. A method according to claim 6, wherein the first density is greater than the second density, and wherein orienting the optical axis at the range of effective downward angles positions the optical axis to extend

through the primary fluid at the anterior optical center and the secondary fluid at the posterior optical center.

8. A method according to claim 6, wherein the second density is greater than the first density, and wherein orienting the optical axis at the range of effective downward angles positions the optical axis to extend through the secondary fluid at the anterior optical center and the primary fluid at the posterior optical center.

9. A method according to claim 6, wherein the secondary fluid is contained in the chamber of the optic body in a sufficient amount that orienting the optical axis for near vision throughout a range of at least 70 degrees to 90 degrees relative to the horizon orientation positions the optical axis to extend through the primary fluid and the secondary fluid.

10. A method according to claim 6, wherein the secondary fluid is contained in the chamber of the optic body in a sufficient amount that orienting the optical axis for near vision throughout a range of at least 45 degrees to 90 degrees relative to the horizon orientation positions the optical axis to extend through the primary fluid and the secondary fluid.

11. A method according to claim 6, wherein the secondary fluid is contained in the chamber of the optic body in a sufficient amount that orienting the optical axis for near vision throughout a range of at least 30 degrees to 90 degrees relative to the horizon orientation positions the optical axis to extend through the primary fluid and the secondary fluid.

12. A method according to claim 6, wherein the range of effective downward angles comprises 90 degrees from the horizontal orientation.

13. (Original) An intraocular lens for a human eye, the intraocular lens comprising:

an optic body sized and configured to be received in the human eye, the optic body comprising an anterior wall with an anterior optical center, a posterior wall with a posterior optical center, and a chamber between the anterior wall and the posterior wall, the optic body having an optical axis intersecting the anterior wall at the anterior optical center and the posterior wall at the posterior optical center;

an optically transmissive primary fluid having a first density and a first refractive index, the primary fluid being contained in the chamber of the optic body in a sufficient amount that orienting the optical axis in a horizontal orientation for far vision positions the optical axis through the

primary fluid and immerses the anterior and posterior optical centers in the primary fluid; and

an optically transmissive secondary fluid substantially immiscible with the primary fluid and having a second density and a second refractive index that are different than the first density and the first refractive index, the secondary fluid contained in the chamber of the optic body in a sufficient amount that orienting the optical axis for near vision at a range of effective downward angles relative to the horizontal orientation positions the optical axis to extend through the primary fluid and the secondary fluid,

wherein the chamber further comprises a dike for inhibiting flow of the secondary fluid to the anterior and posterior optical centers when the optic body is oriented to angle the optical axis upward relative to the horizontal orientation.

14. An intraocular lens according to claim 13, wherein the dike is sufficient in dimension to prevent all of the secondary fluid from reaching the anterior and posterior optical centers when the optic body is oriented to place the optical axis upward and perpendicular to the horizontal orientation.

15. An intraocular lens according to claim 14, wherein the dike comprises a channel formed in a member selected from the group consisting of the anterior wall and the posterior wall.

16. An intraocular lens according to claim 15, wherein the channel is arcuate.

17. An intraocular lens according to claim 15, wherein the channel is annular.

18. An intraocular lens according to claim 13, wherein the dike comprises a protuberance formed in a member selected from the group consisting of the anterior wall and the posterior wall.

19. An intraocular lens according to claim 18, wherein the protuberance is arcuate.

20. An intraocular lens according to claim 18, wherein the protuberance is annular.

21. A method for altering focus through an intraocular lens implanted in a human eye of a user, the method comprising:

providing the intraocular lens wherein the intraocular lens comprises an optic body received in the human eye, the optic body comprising an anterior wall, a posterior wall, and a chamber between the anterior wall and the posterior wall, optically transmissive primary and secondary liquids contained in the chamber, the primary liquid having a different density and refractive index than the second liquid;

orienting the human eye in a generally straight ahead gaze for far vision to pass the visual axis through the primary liquid, but not the secondary liquid, for focusing on a distant point;

moving the human eye into a downward gaze to pass the visual axis through the primary liquid and the secondary liquid for focusing on a near point, the near point being in closer proximity to the human eye than the distant point; and

providing the chamber with a dike for inhibiting flow of the secondary fluid to the anterior and posterior optical centers when the optic body is oriented to angle the optical axis upward relative to the horizontal orientation.